Section 1 - Chemical Product and Company Identification

Product Name: RPER MVI 2000

Chemical Name: Severely Hydrotreated Heavy Naphthenic Distillate/Hydrotreated Residual Oils

Chemical Family: Petroleum Distillates Blend

Chemical Formula: Not Applicable EC(EINECS)Number: 265-160-8/265-155-0 CAS Number: 64742-57-0/64742-52-5 Industrial category: Petroleum •

Other Designations: Petroleum distillates, mineral oil

Company Details: TENOIT CO., LTD.

Room 4, 5FL., No. 109, Sec. 6, Mingquan East Road, Taipei, Taiwan

EMERGENCY TELEPHONE NUMBER: TEL (886) 2 8792–2185 8792–2187

FAX (886) 2 8792-2151

Section 2 - Hazardous Identification

Classification: Nonhazardous
Human and Environmental Effects
Primary Entry Route: Skin

Inhalation: Inhalation of vapors or mist may be irritating to respiratory passage. Target Organ for mineral oil mist is lungs. Prolonged exposure may result in dizziness and nausea.

Skin: Short term contact with skin is unlikely to cause any problems; excessive or prolonged and repeated contact and poor hygiene conditions may result in dryness, dermatitis, erythema, oil acne, cracking and defatting of the skin.

Eye: Eye contact may result in slight irritation and redness. Temporary redness or burning may occur.

Ingestion: May result in nausea or stomach discomfort may have a laxative effect if swallowed. **Carcinogenicity:** Based on OSHA 1910.1200 and IARC study requirements, this product does not require labeling. Meets EU requirement of less than 3%(w/w)DMSO extract for total polycyclic aromatic compound(PAC) using IP 346.NTP and OSHA do not list this product as a potential carcinogen.

Mutagenicty: This product gives negative mutagenic results from Modified Ames Assay.

Other Effects

Medical Conditions Aggravated by Long-Term Exposure: Personnel with pre-existing skin disorders should avoid contact with this product.

Section 3 - Composition/Information on Ingredients

A complex combination of hydrocarbons obtained by treating a petroleum fraction with hydrogen in the presence of a catalyst. It consists of hydrocarbons having carbon numbers predominantly greater than C20 through C50, boiling above 400°C and produces a finished oil with viscosity near 2100 SUS@100°F(394cSt@40°C).

Ingredient Name	EC No.	CAS No.	% Vol.	Classification
Residual Oils(petroleum), Hydrotreated	265-160-8	64742-57-0	55-75	Nonhazardous
Distillates, Hydrotreated Heavy Naphthenic	265-155-0	64742-52-5	25-45	Nonhazardous

Section 4 - First Aid Measures

Inhalation: Remove to fresh air. Assist breathing if necessary. Seek medical help.

Skin Contact: Wash thoroughly with soap and water. Remove contaminated clothing. Reuse only after cleaning.

Eye Contact: Wash with large amounts of water for 15 minutes. If irritation or redness persists seek medical help.

Ingestion: If swallowed, observe for signs of stomach discomfort or nausea. If symptoms persist, seek medical help. Do not induce vomiting.

Information for Physicias: If there is any suspicion of aspiration into the lungs obtain medical

advice.

Section 5 - Fire Fighting Measures

Extinguishing Media: Halon, dry chemical, foam, CO₂ and water mist or fog. Water may be used to cool below flash point.

Extinguishing Methods Not Used: Do not use forced stream as this could cause fire to spread. **Exposure Hazard(Combustion Products):** Fumes, Smoke, and Carbon monoxide.

Fire-Fighting Equipment: Fire fighting personnel should wear respiratory protection (positive pressure if available).

Fire-Fighting Instruction: Use water to cool containers exposed to flames. Do not enter enclosed or a confined work space without proper protective equipment. Do not point solid water stream directly into burning oil to avoid spreading.

Section 6 - Accidental release Measures

Personal Precautions

Spill/Leak Procedures:

Stop spill at source if possible without risk. Contain spill. Eliminate sources of ignition. Wear appropriate protective equipment and clothing during clean-up. Spill area will be slick.

Environmental Precautions:

Spill to navigable Waters: If this material is spilled into navigable waters and creates a visible sheen, mutual assistance may be obtained from National Response Center.

Water Hazard Class: WGK 1(Slightly water polluting)

Methods for clean-up: Recover all possible material for reclamation. Use non-flammable absorbent material to pick up remainder of spill. Surfaces may become slippery after spillage. Absorb with inert absorbent such as dry clay, sand or diatomaceous earth. Scoop up used absorbent into drums. Dispose of spent absorbent in an approved industrial waste landfill.

Section 7 - Handling and Storage

Handling :

Precautions:

Keep away from flames, sparks or hot surfaces. Never use a torch to cut or weld on or near container. Empty oil containers can contain explosive vapors. Wash thoroughly after handling. Work/Hygienic Practices:

Wash hands with soap and water before eating, drinking, smoking or use of toilet facilities. Do not use gasoline, solvents, kerosene, or harsh abrasive skin cleaners for washing exposed skin areas. Avoid getting this material into contact with your skin and eyes. Avoid the generation of oil mists. Take a shower after work if general contact occurs. Remove oil-soaked clothing and launder before reuse. Discard contaminated shoes and leather gloves.

Storage

Product should be stored in clean, dry containers at ambient temperatures and it should remain stable with exception of slight color stability loss unless it is contaminated. Do not store this material in open or unlabeled containers.

Section 8 - Exposure Controls/Personal Protection

Exposure Limit Values:

EUROPE:

Workplace Exposure Limits(WELs)/Occupational Exposure Limits(OELs): None established INTERNATIONAL:

GETIS International Limit values: 8Hr Limit: 5 mg/m³ STL:10 mg/m³(UK, ES, CA, US) UNITED STATES: Trace Impurities:

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Ingredient	OSHA PEL		ACGIH TLV		NIOSH REL		NIOSH
	TWA	STEL	TWA	STEL	TWA	STEL	IDLH
Residual Oils(Petroleum), Hydrotreated	5 mg/m³ (oil mist)	None estab	5 mg/m³ (oil mist)	10 mg/m³ (oil mist)	None estab	None estab	None estab
Severely Hydrotreated Heavy Naphthenic Petroleum Oil	5 mg/m³ (oil mist)	None estab	5 mg/m³ (oil mist)	10 mg/m³ (oil mist)	None estab	None estab	None estab

Exposure Controls:

Occupational Exposure Controls:

Respiratory Protection: Not Normally Needed. Respirator should be used in areas where vapor concentrations are excessive due to high temperatures or where oil misting occurs.

Eye/Face Protection: Safety glasses or face shield where splashing is possible •

Skin Protection: As needed to prevent repeated skin contact. Solvent resistant gloves should be used if needed.

Respiratory Protection: Not Normally Needed. Respirator should be used in areas where vapor concentrations are excessive due to high temperatures or where oil misting occurs.

Environmental Exposure Controls: Adequate ventilation is required where excessive heating or agitation may occur to maintain concentration below exposure limits. If oil mists are generated, observe the exposure limits $^{\circ}$

Section 9 - Physical and Chemical Properties

Physical State: Liquid
Appearance: Clear & bright
Color: Yellow to Amber

 $\textbf{Odor}: \texttt{Mild petroleum}(\texttt{Hydrocarbon}) \ \texttt{Odor}$

Odor Threshold : Not determined
Vapor Pressure : Not applicable
Vapor Density(Air=1) : 1

% Volatile: Nil(LVP-VOC)
Specific Gravity(H₂O=1): 0.9100

Viscosity: near 2100 SUS @100°F(395 cSt@40°C).

Water Solubility(H2O): Nil

Boiling Point: $: \ge 700^{\circ} F(370^{\circ}C)$

Pour Point : $5^{\circ}F(-15^{\circ}C)$

Evaporation Rate: Not available

PH: Not applicable
Molecular weight: 572

Flash Point: 495°F(257°C)typical COC Autoignition Temperature: > 315°C Lower Explosive Level(LEL): Not determined Upper Explosive Limit(UEL): Not determined

Section 10 - Stability and Reactivity

Condition to Avoid(Stability): Sources of ignition, high temperature and open flame.

Materials to Avoid/Chemical Incompatibilites: Strong Oxidizers.

Hazardous Decomposition Products: Combustion products include carbon dioxide, carbon monoxide, oxides of sulfur & nitrogen.

Polymerization: Polymerization will not occur.

Stability: Stable

Section 11 - Toxicological Information

Acute Effects:

Acute Oral Toxicity: Tests on similar materials indicate low order of acute oral toxicity.

Acute Inhalation Toxicity: Low acute toxicity expected on inhalation.

Skin Toxicity: Practically non-toxic if absorbed. Other similar highly refined products have not shown skin tumors in mouse skin painting studies.

Eyes Irritation: Minimal irritation on contact. Eye irritation slight or practically non-irritating based on similar products.

Skin Irritation: May cause mild irritation with prolonged and repeated exposure.

Sensitization:

Skin Sensitization: Skin sensitization is indicated as non-sensitizing based on data from similar products.

CMR Properties:

 $\underline{\text{Carcinogenicity}}$: Not considered a potential carcinogen based on IP346 DMSO of less than 3.0 wt

<u>Mutagenicity</u>: This product is considered non-mutagenic and has negative potential for tumor development based on results from Modified Ames Assay, with Mutagenic Index of less than 1.0. This product is severely hydrotreated at greater than 800 psi, and does not require a cancer warning under OSHA Hazard Communication Standard(29 CFR 1910.1200). Similar products have not been listed in NTP reports, and are classified by IARC as having inadequate evidence of carcinogenicity. IARC indicates that based on preponderance of data highly refined mineral oils are not mutagenic either in vitro or in vivo. Severely hydrotreated naphthenic petroleum oils

have not been found to be carcinogenic or potential carcinogens.

Section 12 - Ecological Information

Ecotoxicity: Available data indicate this product is not acutely toxic. Other similar products have shown 48 hr EL_{50} for *Daphnia magna* greater than 1000 mg/L, and 96 hr $1rL_{50}$ for *Scenedesmus subspicatus* (Alga) greater than 1000 mg/L. No other information is available on ecotoxicity of this product \circ

Biodegradability: No information available; based on similar product is not readily biodegradable in the environment.

Aquatic Release: Advise authorities if product has entered or may enter watercourses or sewer drains.

Section 13 - Disposal Considerations

Disposal: Consider recycling • If permitted incineration may be practical •

 $\textbf{Additional:} Follow \ \textbf{National and Local regulations} \ \circ \ \textbf{Do not flush to drain/storm sewer} \ \circ \ \textbf{Contract authorized disposal service} \ \circ \ \\$

Section 14 - Transport Information				
Land	Air	Sea		
DOT-Not regulated ADR(Road)-Not classified RID((Rail)-Not classified	ICAO/IATA(Air)- Not classified	IMDG/IMO(Water)- Not classified		

Section 15 - Regulatory Information

EU(European) REGULATIONS: This product does not need to be labeled in accordance with EC directives and is not known to be a dangerous goods internationally.

REACH: This product is pre-registered with ECHA.

Labelling:

Hazard Label None Danger Symbol None Phrases: None

Restrictions on use(uses advised against): This product has poor compatibility with certain types of rubber; therefore verify material compatibility before using.

Other Regulation:

Canada(WHMIS): Not listed on the Canadian Controlled Product Ingredient Disclosure and is compliant with Controlled Products Regulation.

United States Federal Regulatory Information:

CERCLA/SARA:

302/303/304 categories: Extremely hazardous substances: No 311/312 categories: Immediate(Acute) Health Effects: No Delayed(Chronic) health effects: No Fire Hazards: No Sudden Release of Pressure Hazard: No Reactivity Hazard: No 313 categories: Toxic Chemicals(40 CFR 372): No Clean Air act: Hazardous Air Pollutants(HAPS): No Ozone Depleting Compounds(ODC): No

 $\hbox{{\it Clean Water Act:}} \ \, \hbox{If spilled into navigable waters it is reportable to National Response Center}, \\ 800-424-8802$

Reportable Quantity= 0il sheen present on navigable water surface.

OSHA(29CFR 1910): This product is not hazardous under Hazard Communication Standard 29 CFR 1910.1200

RCRA(40 CFR 261.33): This product does not meet hazardous waste criteria.

EPA/TSCA Inventory: The components of this product are listed on the EPA/TSCA inventory of

chemicals. CAS No: 64742-57-0/64742-52-5

United States-State Regulations:

California Prop 65	No Proposition 65 chemicals exist in this product, no labeling required			
Florida	No listed ingredients are present			
Massachusetts RTK	No listed ingredients are present			
Minnesota RTK	No listed ingredients are present			
New Jersey RTK	Lists p	etroleum oil, but this product does not contain hazardous		
	ingredients			
Pennsylvania RTK	List petroleum oil , but this product does not contain hazardous			
	ingredients greater than 3%			
Illinois DOL TSL No Listed ingredients are present				
CONEG Metals	Since cadmium, chromium, lead and mercury are not detectable and it does			
	not exceed 100 ppm total in this product, it is compliant with CONEG Metals			
	regulation.			
Foreign/International Inventories:				
The components of this product are listed under the following foreign inventories:				
European Union's EINICS		No. 264-160-8/265-155-0		
USA's TSCA CAS		No. 64742-57-0/64742-52-5		
Korea's ECL No. KE-12543		No. KE-12543		
Australia's AICS		No. 64742-57-0/64742-52-5		
Canada's DSL No. 64742-57-0/64742-52-5				
Philippines' PICCS				
New Zealand's NZIoC(E	RMA)			
Japan's METI or NITE				
Sweden's KemI				
	Section 16 - Other Information			

Relevant R-Phrases & Hazards

EC Label: None(Non-hazardous)

Hazard Symbol: None R-Phrase: None S-Phrase: None

Training recommendations: Person placing substance on market shall ensure that competent persons have received appropriate training.

Restrictions on use(uses advised against): This product has poor compatibility with certain types of rubber; therefore verify material compatibility before using.

Disclaimer:

The information contained herein is based upon data believed to be reliable and reflects our best professional judgment. It is the responsibility of the user to determine the suitability of the material for their purpose. No warranty is expressed or implied, is given.